

WHAT IS CLAIMED IS:

1 1. A rack-mounted storage library comprising:
2 a rack having an interior and a length;
3 a media element handling assembly;
4 a first panel segment having an inner surface, the first panel segment
5 being mounted to a first side of the rack at a first rack length position such that the
6 inner surface of the first panel segment faces the rack interior; and
7 a first set of media element housing cells supported on the inner
8 surface of the first panel segment such that the first set of media element housing
9 cells face the rack interior at the first rack length position;
10 wherein the media element handling assembly is operable for moving
11 through the rack interior to the first rack length position in order to manipulate
12 media elements held by the first set of media element housing cells.

1 2. The library of claim 1 further comprising:
2 a second panel segment having an inner surface, the second panel
3 segment being mounted to a second side of the rack at the first rack length position
4 such that the inner surface of the second panel segment faces the rack interior; and
5 a second set of media element housing cells supported on the inner
6 surface of the second panel segment such that the second set of media element
7 housing cells face the rack interior at the first rack length position;
8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first rack length position in order to manipulate
10 media elements held by the first and second sets of media element housing cells.

1 3. The library of claim 2 further comprising:
2 a third panel segment having an inner surface, the third panel segment
3 being mounted to a third side of the rack at the first rack length position such that
4 the inner surface of the third panel segment faces the rack interior; and
5 a media element player supported on the inner surface of the third
6 panel segment such that the media element player faces the rack interior at the first
7 rack length position;

8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first rack length position in order to load media
10 elements held by the first and second sets of media element housing cells into the
11 media element player.

1 4. The library of claim 3 wherein:
2 the first, second, and third panel segments are mounted to the
3 respective rack sides independent of one another.

1 5. The library of claim 3 wherein:
2 the first, second, and third panel segments are connected together
3 independent of the mounting with the respective rack sides.

1 6. The library of claim 1 wherein:
2 a media element player supported on the inner surface of the first
3 panel segment such that the media element player faces the rack interior at the first
4 rack length position;
5 wherein the media element handling assembly is operable for moving
6 through the rack interior to the first rack length position in order to load media
7 elements held by the first set of media element housing cells into the media element
8 player.

1 7. The library of claim 1 further comprising:
2 a second panel segment having an inner surface, the second panel
3 segment being mounted to any one of the rack sides at a second rack length position
4 such that the inner surface of the second panel segment faces the rack interior; and
5 a second set of media element housing cells supported on the inner
6 surface of the second panel segment such that the second set of media element
7 housing cells face the rack interior at the second rack length position;
8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first and second rack length positions in order to
10 manipulate media elements held by the first and second sets of media element
11 housing cells.

1 8. The library of claim 1 further comprising:
2 a second panel segment having an inner surface, the second panel
3 segment being mounted to any one of the rack sides at a second rack length position
4 such that the inner surface of the second panel segment faces the rack interior; and
5 a media element player supported on the inner surface of the second
6 panel segment such that the media element player faces the rack interior at the
7 second rack length position;
8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first and second rack length positions in order to load
10 media elements held by the first set of media element housing cells into the media
11 element player.

1 9. A method for forming a storage library provided with a rack
2 having an interior and a media element handling assembly operable for moving
3 through the rack interior to manipulate media elements held by media element
4 housing cells facing the rack interior, the method comprising:
5 supporting a first set of media element housing cells on an inner
6 surface of a first panel segment; and
7 mounting the first panel segment to a first side of the rack at a first
8 rack length position such that the first set of media element housing cells face the
9 rack interior at the first rack length position.

1 10. The method of claim 9 further comprising:
2 supporting a second set of media element housing cells on an inner
3 surface of a second panel segment; and
4 mounting the second panel segment to a second side of the rack at the
5 first rack length position such that the second set of media element housing cells face
6 the rack interior at the first rack length position.

1 11. The method of claim 10 wherein the media element handling
2 assembly is operable for moving through the rack interior to load media elements

3 held by the first and second sets of media element housing cells into a media element
4 player facing the rack interior, the method further comprising:
5 supporting a media element player on an inner surface of a third panel
6 segment; and
7 mounting the third panel segment to a third side of the rack at the first
8 rack length position such that the media element player faces the rack interior at the
9 first rack length position.

1 12. The method of claim 11 wherein:
2 the first, second, and third panel segments are mounted to the
3 respective rack sides independent of one another.

1 13. The library of claim 11 further comprising:
2 connecting the first, second, and third panel segments together prior
3 to mounting the first, second, and third panel segments with the respective rack
4 sides.

1 14. The method of claim 9 wherein the media element handling
2 assembly is operable for moving through the rack interior to load media elements
3 held by media element housing cells facing the interior into a media element player
4 facing the rack interior, the method further comprising:
5 supporting a media element player on the inner surface of the first
6 panel segment such that the media element player faces the rack interior at the first
7 rack length position when the first panel segment is mounted to the first side of the
8 rack.

1 15. The method of claim 9 further comprising:
2 supporting a second set of media element housing cells on an inner
3 surface of a second panel segment; and
4 mounting the second panel segment to a second side of the rack at a
5 second rack length position such that the second set of media element housing cells
6 face the rack interior at the second rack length position.

1 16. The method of claim 9 wherein the media element handling
2 assembly is operable for moving through the rack interior to load media elements
3 held by media element housing cells facing the interior into a media element player
4 facing the rack interior, the method further comprising:

5 supporting a media element player on an inner surface of a second
6 panel segment;

7 mounting the second panel segment to any one of the rack sides at a
8 second rack length position such that the media element player faces the rack
9 interior at the second rack length position.

1 17. A rack-mounted storage library comprising:

2 a rack having a vertically upright, rectangular form formed by top
3 and bottom rack portions and four legs extending therebetween, the legs being
4 placed at respective corners of the top and bottom rack portions, the legs forming
5 a rectangular interior within the rack bounded by four rack sides;

6 a media element handling assembly movably connected to the rack
7 for moving through the rack interior;

8 a first panel segment having an inner surface, the first panel segment
9 being mounted to one side of the rack at a first rack length position such that the
10 inner surface of the first panel segment faces the rack interior, the first panel
11 segment being void of hardware for moving the media element handling assembly;
12 and

13 a first set of media element housing cells supported on the inner
14 surface of the first panel segment such that the first set of media element housing
15 cells face the rack interior at the first rack length position;

16 wherein the media element handling assembly moves through the rack
17 interior to move to the first rack length position in order to manipulate media
18 elements held by the first set of media element housing cells.

1 18. The library of claim 17 further comprising:

2 a second panel segment having an inner surface, the second panel
3 segment being mounted to any one of the rack sides at a second rack length position
4 such that the inner surface of the second panel segment faces the rack interior, the

5 second panel segment being void of hardware for moving the media element
6 handling assembly; and
7 a media element player supported on the inner surface of the second
8 panel segment such that the media element player faces the rack interior at the
9 second rack length position;
10 wherein the media element handling assembly moves through the rack
11 interior to move to the first and second rack length positions in order to load media
12 elements held by the first set of media element housing cells into the media element
13 player.

1 19. A storage library panel assembly for a rack-mounted storage
2 library provided with a rack and a media element handling assembly operable for
3 moving through an interior of the rack, the panel assembly comprising:
4 a first panel segment having an inner surface, the first panel segment
5 being mountable to a side of the rack such that the inner surface of the first panel
6 segment faces the rack interior when the first panel segment is mounted to the side
7 of the rack; and
8 a first set of media element housing cells supported on the inner
9 surface of the first panel segment such that the first set of media element housing
10 cells face the rack interior when the first panel segment is mounted to the side of the
11 rack.

1 20. The panel assembly of claim 19 further comprising:
2 a second panel segment having an inner surface, the second panel
3 segment being mountable to another side of the rack such that the inner surface of
4 the second panel segment faces the rack interior when the second panel segment is
5 mounted to the other side of the rack; and
6 a second set of media element housing cells supported on the inner
7 surface of the second panel segment such that the second set of media element
8 housing cells face the rack interior when the second panel segment is mounted to the
9 other side of the rack;
10 wherein the first and second panel segments are connected together
11 independent of mounting with the respective rack sides.

1 21. The panel assembly of claim 19 further comprising:
2 a second panel segment having an inner surface, the second panel
3 segment being mountable to another side of the rack such that the inner surface of
4 the second panel segment faces the rack interior when the second panel segment is
5 mounted to the other side of the rack; and
6 a media element player supported on the inner surface of the second
7 panel segment such that the media element player faces the rack interior when the
8 second panel segment is mounted to the other side of the rack;
9 wherein the first and second panel segments are connected together
10 independent of mounting with the respective rack sides.

1 22. A rack-mounted storage library comprising:
2 a rack having an interior and a length, the rack having a door being
3 operable for opening to expose the rack interior along a first side of the rack and
4 being operable for closing to have an inner surface of the door face the rack interior
5 along the first side of the rack;
6 a media element handling assembly; and
7 a first set of media element housing cells supported on the inner
8 surface of the door at a first rack length position such that the first set of media
9 element housing cells face the rack interior at the first rack length position when the
10 door is closed;
11 wherein the media element handling assembly is operable for moving
12 through the rack interior to the first rack length position in order to manipulate
13 media elements held by the first set of media element housing cells.

1 23. The library of claim 22 further comprising:
2 a second set of media element housing cells supported on the inner
3 surface of the door at a second rack length position such that the second set of media
4 element housing cells face the rack interior at the second rack length position when
5 the door is closed;
6 wherein the media element handling assembly is operable for moving
7 through the rack interior to the first and second rack length positions in order to

8 manipulate media elements held by the first and second sets of media element
9 housing cells.

1 24. The library of claim 23 further comprising:
2 a media element player supported on the inner surface of the door at
3 a third rack length position such that the media element player faces the rack interior
4 at the third rack length position when the door is closed;
5 wherein the media element handling assembly is operable for moving
6 through the rack interior to the first, second, and third rack length positions in order
7 to load media elements held by the first and second sets of media element housing
8 cells into the media element player.

1 25. The library of claim 22 further comprising:
2 a first panel segment having an inner surface, the first panel segment
3 being mounted to the first side of the rack at a second rack length position such that
4 the inner surface of the first panel segment faces the rack interior; and
5 a second set of media element housing cells supported on the inner
6 surface of the first panel segment such that the second set of media element housing
7 cells face the rack interior at the second rack length position;
8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first and second rack length positions in order to
10 manipulate media elements held by the first and second sets of media element
11 housing cells.

1 26. The library of claim 25 further comprising:
2 a second panel segment having an inner surface, the second panel
3 segment being mounted to a second side of the rack at the first rack length position
4 such that the inner surface of the second panel segment faces the rack interior; and
5 a third set of media element housing cells supported on the inner
6 surface of the second panel segment such that the third set of media element housing
7 cells face the rack interior at the first rack length position;
8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first and second rack length positions in order to

10 manipulate media elements held by the first, second, and third sets of media element
11 housing cells.

1 27. The library of claim 26 further comprising:
2 a third panel segment having an inner surface, the third panel segment
3 being mounted to a third side of the rack at the first rack length position such that
4 the inner surface of the third panel segment faces the rack interior; and
5 a media element player supported on the inner surface of the third
6 panel segment such that the media element player faces the rack interior at the first
7 rack length position;
8 wherein the media element handling assembly is operable for moving
9 through the rack interior to the first and second rack length positions in order to load
10 media elements held by the first, second, and third sets of media element housing
11 cells into the media element player.

1 28. A rack-mounted storage library comprising:
2 a rack having an interior and a length, the rack having a cover sheet
3 being operable for hanging over the rack to have an inner surface of the cover sheet
4 face the rack interior along a first side of the rack;
5 a media element handling assembly; and
6 a set of media element housing cells supported on the inner surface
7 of the cover sheet at a first rack length position such that the set of media element
8 housing cells face the rack interior at the first rack length position when the cover
9 sheet is hung over the rack;
10 wherein the media element handling assembly is operable for moving
11 through the rack interior to the first rack length position in order to manipulate
12 media elements held by the media element housing cells.